Title: METHOD AND COMPUTER SYSTEM FOR EVALUATING THE COMPLEXITY OF A USER INTERFACE

REMARKS

This communication responds to the Office Action dated May 26, 2010. Claims 1, 4, 6, 9, 10, and 12 are amended. Claims 3 and 8 are currently canceled. Claim 11 was previously canceled. New claims 13-20 are added. Support for the claim amendments and new claims may be found in at least paragraphs [0011], [0015], and [0024] of Applicants' Published Application.² As a result, claims 1-10 and 12-20 are now pending in this application.

Claim Objections

Claim 8 was objected to for being an improper dependant claim. Specifically, the Examiner alleged that claim 8 "appears not to have an independent claim to depend from." However, Applicants have canceled claim 8 so this objection is now moot.

The Rejection of Claims Under § 101

Claims 1- 9 were rejected under 35 U.S.C. 101 as being allegedly directed to nonstatutory subject matter of software, per se. In response, independent claims 1 and 6 have been amended to comprise, inter alia, "one or more processors." The presence of one or more processors to perform an action effectively ties the claims to a particular machine. See Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. §101 (August 25, 2009) at slide 15. Therefore, independent claims 1 and 6 are directed to statutory subject matter. Claims 2-5, 7, and 8 depend from claims 1 and 6, and are, therefore, patent eligible for at least the same reasons as their respective base claims. As such, Applicants respectfully request that the rejection of claims 1-9 under 35 U.S.C. §101 be reconsidered and withdrawn.

Claim 12 was rejected under 35 U.S.C. 101 as allegedly being directed to non-statutory subject matter because "the claim is drawn to a form of energy," Claim 12 has been amended

² U.S. Published Patent Application No. 2007/0162874.

³ Office Action at 4.

⁴ Id. at 4.

⁵ Id. at 6.

to recite a "non-transitory machine-readable storage medium." Any instruction capable of being stored in a "machine-readable storage medium" is directed to statutory subject matter. See Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. §101 (August 25, 2009) at 10. Furthermore, according to instructions issued by the USPTO, "[a] claim drawn to such a computer readable medium . . . may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 U.S.C. § 101 by adding the limitation "non-transitory" to the claim." The USPTO has instructed that, "[s]uch an amendment would typically not raise the issue of new matter." Applicants respectfully submit that, as amended herein, claim 12 does not encompass non-statutory subject matter. Thus, Applicants respectfully request that this rejection of claim 12 be reconsidered and withdrawn.

The Rejection of Claims Under § 102

Claims 1-3, 10, and 12 were rejected under 35 U.S.C. 102(b) as allegedly being anticipated by James Noble et al. ("Interactive Design Metric Visualization: Visual Metric Support for User Interface Design" IEEE 1996; Noble). In order to anticipate a claim, a reference must teach all limitations, arranged or combined in the same way as recited in Applicants' claim. The Court of Appeals for the Federal Circuit recently held

[U]nless a reference discloses within the four corners of the document not only all of the limitations claimed but also all of the limitations arranged or combined in the same way as recited in the claim, it cannot be said to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 U.S.C. § 102." (Net MoneyIn, Inc. v. Verisign, Inc. 545 F.3d 1359, 1371 (Fed. Cir. 2008) Emphasis added.)

Since *Noble* fails to disclose all limitations of Applicants' amended independent claims 1, 10, and 12, these claims are not anticipated, and are thus novel.

Independent claim 1 recites, in part,

[A] library having complexity evaluation functions to determine complexity values of layout components of the respective layout component hierarchies, where each complexity evaluation function is associated with the layout component to which it is applied:

Osphilos of Computer Readable Media, issued January 26, 2010.

⁸ Office Action at 7.

an aggregator to aggregate, using one or more processors, the complexity values by device class according to the corresponding layout component hierarchy of the respective device class specific representation; and

complexity display to visually present an aggregated complexity value for each device class, the aggregated complexity value comprising a numerical value.

Each of independent claims 10 and 12 recite at least some claim language as that emphasized above with respect to claim 1.

In rejecting the library limitation of claim 1, the Examiner alleged that the library is taught by a suite of metrics as described in sections 2.2-3.3 of Noble. However, the cited portions of Noble merely provide a general discussion of a plurality of design metrics to be used in an "experimental prototype described" in Noble. A plurality of metrics is not a library including a set of complexity evaluation functions nor is a metric of the plurality of metrics a "complexity evaluation function... associated with the layout component to which it is applied" as recited in clam 1, wherein each layout component is a component in a layout component hierarchy. In fact, Noble is completely silent with respect to having a library or hierarchy.

The Examiner further rejected the aggregator limitation by citing to Figure 4 of *Noble* stating that "the results are aggregated together to show the relationships between the components." However, Figure 4 of *Noble* merely shows the alleged aggregation as a series of graphical overlays whereby "[e]ach metric is visualized using a separate visual encoding and in a separate layer." The aggregated complexity value in *Noble* is nothing more than overlays of separate metrics. The aggregated complexity value is not a numerical value as recited in claim 1.

In fact, Noble specifically states that

Our own initial experiments suggest that displaying the numeric value of design metrics may actually be a deterrent to good design because, instead of attending to the overall structure of the layout

⁹ Emphasis added.

¹⁰ Office Action at 7.

Nobel at section 3, pg. 214.

¹² Office Action at 8.

¹³ Noble at section 4.4, pg. 217.

and the broader design issues, designers can become too focused on "the numbers," maximizing the numerical values even at the expense of better layout. ¹⁴

Thus, Noble teaches away from displaying a numerical value for each design metric because designers will be too focused on maximizing values. As such, Noble cannot anticipate having an "aggregated complexity value comprising a numerical value" as recited in claim 1 as this would directly contradict one of the stated disadvantage that Noble is trying to overcome.

Since Applicants have shown that not all the claimed elements were known as required by the *Net MoneyIn* court, Applicants respectfully request the Examiner reconsider and withdraw the rejection under 35 U.S.C. §102(b) with regard to independent claims 1, 10, and 12.

Further, since claim 2 depends from claim 1, claim 2 is allowable for at least the same reasons as those provided for claim 1.¹⁵ Furthermore, this dependent claim may contain additional patentable subject matter.

The Rejection of Claims Under § 103

Claim 4-9 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Noble in view of Parker et al. (U.S. Patent No. 5,600,789; Parker). 16

Claims 4 and 5

Claims 4 and 5 depend from claim 1 that Applicants assert is patentable. The cited reference to *Parker* fails to supply the elements of the independent claim that was shown above to be missing from *Noble*. Therefore, Applicants assert that claims 4 and 5 are patentable and request the Examiner reconsider and withdraw the rejection of claims 4 and 5 under 35 U.S.C. 103(a).

¹⁴ Id. at section 3.4, pg. 215.

¹⁵ Claim 3 is canceled.

¹⁶ Office Action at 9.

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Claims 6, 7, and 9

The recent U.S. Supreme Court decision of KSR v. Teleflex provides a tripartite test to evaluate obviousness.

The rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art. (See KSR International Co. v. Teleflex Inc., 127 S. Ct. 1727, 82 U.S.P.Q.2d 1385 (2007); see also MPEP § 2143. Emphasis added.)

Applicants will show that the cited references, either singly or in combination, neither teach nor suggest all limitations of Applicants' claims. Although other rationales for rejection under 35 U.S.C. §103(a) may exist, the basis for an obviousness rejection is still grounded in a consideration of all claim elements. "All words in a claim must be considered in judging the patentability of that claim against the prior art." Additionally, to render the claimed subject matter obvious, the prior art references must teach or suggest every feature of the claims. 18

Independent claim 6 recites, in part,

[A]ggregating, using one or more processors, the complexity values by device class according to a corresponding layout component hierarchy of the respective device class specific representation; and

visually presenting an aggregated complexity value for each device class, the aggregated complexity value comprising a numerical value.

As discussed above with respect to claim 1, *Noble* does not teach or even suggest aggregating complexity values whereby "the aggregated complexity value comprises a numerical value." The addition of *Parker* does not cure this deficiency with respect to *Noble*. As such, Applicants assert that independent claim 6, as well as dependent claims 7 and 9, is patentable over the cited references for at least the same reasons as those provided above with respect to claim 1.²⁰

¹⁷ In re Wilson, 424 F.2d 1382, 1385, 165 USPO 494, 496 (CCPA 1970). See also MPEP § 2143.03.

¹⁸ See Manual of Patent Examining Procedure §§ 706.02(j), 2143(A) (2008); MPEP § 2142 (2006) (citing In re Vaeck, 947 F.2d, 488 (Fed. Cir. 1991). Cited approvingly in Ex parte WEN WEN and PATRICIA NG at 7; Appeal No. 2009-000776; decided September 25, 2009.

¹⁹ Emphasis added.

²⁰ Claim 8 is canceled.

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Furthermore, each of claims 6-9 may contain additional patentable subject matter. Therefore, Applicants request the Examiner reconsider and withdraw the rejection of claims 6-9.

CONCLUSION

Applicants respectfully submit that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone the undersigned at (408) 278-4042 to facilitate prosecution of this application.

If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1496, Alexandria, VA 22313-1490 on this 10 day of August 2010.

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